



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

sionally published in both *Bulletins* and *Memoirs*, but the field of activity of the society is, for the most part, limited to two divisions of the science of anthropology.

Professor Manouvrier, in *Bulletin* No. 2, Vol. ix, reports the existence of a remarkable case of ichthyosis in a peasant forty-seven years of age, from the Department of Lot-et-Garonne. Nearly the entire surface of his body is covered with scales, generally quadrangular, and in places imbricated. The deformity is congenital and has not affected the health of the subject. That it is a case of atavism is suggested, but the supposition cannot be proven. M. Zaborowski gives an interesting account of the affinities of the tribes of Western Siberia, particularly of the ancient peoples whose skeletons are found in the dolmens of that region. It is a relief to note that a very moderate number of measurements is considered sufficient to establish the racial type; brevity is the soul of craniology. After a careful investigation, in which he rejected the usual indices, M. R. Anthony arrived at the conclusion that the variations of the sternum in the mammalian series can best be represented by an index derived from the breadth and thickness of the presternum. This index is higher and more ape-like in the Australians, Negritoes, and Hottentots (above 40) than among Europeans (32.4). Dr. Adolphe Bloch presents the results of his investigations upon the number of phalanges in the fifth toe of the human foot. He states that the anomaly of two phalanges instead of three occurred, according to Pfitzner, in 37.2 per cent of the 799 feet examined. Dr. Bloch's observations upon a smaller series resulted in the discovery of so large a number of cases that the toe with two bones seemed to be the normal one, and the toe with three phalanges the anomaly. He inclines to accept Testut's opinion that the reduction in the number of phalanges in the fifth and other toes is a progressive modification due to the adoption of the erect attitude by man.

FRANK RUSSELL.

ZOOLOGY.

The Birds of Indiana.—The previous catalogues of Indiana birds having become antiquated and out of print, Mr. Amos W. Butler has given us the results of twenty-one years of study of the birds of his native state in a stout volume of 673 pages,¹ forming a

¹ Butler, Amos W., Indianapolis, Ind. *The Birds of Indiana*. A descriptive catalogue of the birds that have been observed within the state, with an account

useful handbook, containing keys for the determination of the species, as well as brief but sufficient descriptions of each bird undoubtedly observed within the confines of the state. By strictly following the nomenclature adopted by the American Ornithologists Union, he has avoided the necessity of synonymic lists, and on the whole the technical matter has been reduced with commendable discretion to the smallest practicable compass, thus leaving ample space for observations regarding distribution, habits, economic importance, etc. The technical matter is chiefly compiled from well-known manuals, for which due credit is given, and calls for no comment here, except that the compilation seems to have been done with care and judgment.

The chief value of the book lies in the original observations of the author, and the student will here find a rich store of facts to ponder upon. The agricultural man will learn which birds to regard as friends, and which to treat as enemies; he will find many of his prejudices and superstitions combated, but he has been given large and convincing series of facts ascertained by the author, or gathered by him from other reliable sources, notably from the publications of Dr. Merriam's division of ornithology of the United States Department of Agriculture. The lover of the feathered tribes will find many interesting bits of information concerning the habits of his favorites, and special attention has evidently been paid to the calls and songs of the various species. Young beginners and local ornithologists will find the book a reliable guide among their specimens, and sportsmen have an easy means of identifying the contents of their bags. Ornithologists of wider sphere will find it a treasure of detailed facts relating to distribution and migration, which it will repay them to exploit.

Ornithology is even now looked upon by many zoologists more as a pleasant pastime than a serious science, more fit for an amateur than for a working natural philosopher. It is true that ornithology, perhaps more than any other branch of zoology, is burdened with the ills resulting from a large number of irresponsible amateurs, but I think it is equally true that no branch, on the other hand, is indebted to non-professional co-workers for most valuable help to the same extent as ornithology. The book before us not only illustrates this point to perfection, but a perusal of it will also convince the most sceptical that in exactness and methods the ornithology of to-day is of their habits. *From the 22d Report of the Department of Geology and Natural Resources of Indiana, 1897. W. S. Blatchley, State Geologist, pp. 515-1187.*

not behind the other sections of descriptive zoology; nay, it may even be said in truth that it has shown the way to many of them. But if the technical part of this science is not behindhand, certainly the object itself is not inferior in general philosophic interest to that of any other branch of zoology. The study of birds has helped throw light on many obscure questions in geology, paleontology, and evolution, and the sooner the ornithologist is enabled to settle all the little questions of detail, which seem so unimportant to outsiders, the sooner will he be able to contribute to the solution of the higher problems. The avifauna of this country is probably better known than that of any other area of even approximately similar extent, yet much is to be done, and in bringing forward its share of the material the book under review is valuable to the most advanced student. Take the case of Kirtland's warbler (p. 1070), for instance. The history of this bird as there set forth is most suggestive and extraordinary. The first specimen was taken at sea, off Abaco Island, one of the Bahamas, in 1841, and the species has since been discovered to pass the winters in that archipelago. Ten years later a specimen was captured near Cincinnati, Ohio, by Dr. Kirtland, for whom Professor Baird named the species. Mr. Butler enumerates twenty specimens as having been seen or killed in North America since then; all these were observed during the spring or fall migrations with possibly one exception, and outside of its winter haunts this species has not been met with elsewhere. Where does it pass the summer; where does it lay its eggs and rear its young? Nobody knows, and we have only surmises. If we draw a straight line from the northwestern end of the Bahamas to the middle of the state of Michigan, we will see that the localities where specimens of this curiously rare bird have been found are either situated nearly on this line or close to it on both sides, *viz.*, in South Carolina, Ohio, Indiana, and southern Michigan; while a few others have been taken at points considerably off the line, as near Minneapolis, St. Louis, and Washington, D. C. These are all the facts which the ornithologists, in spite of the utmost efforts, have been able to bring together during a search of nearly fifty years! And what do these facts suggest? First, let it be stated, that nearly all the facts have been brought to light by non-professional observers; next it may be noted that as ornithology became more popular, and amateurs more numerous, the observations also became more frequent; it is also highly suggestive that the country between South Carolina and Ohio, through which the annual migrations of this bird almost to a certainty take

place, is less frequented by amateur ornithologists than probably any other part of eastern North America; the inference then is pretty plain that if we had more of the right kind of amateurs we should probably also have more facts with which to answer the question — where does this bird summer, and where lies its exact migration route?

The importance of this question is very great, for, seemingly at least, the distribution of this warbler suggests a migration route almost unique. Yet, if we accept as our working theory of migration the only rational one which has been offered to the present day, *viz.*, Palmén's, that the annual migration route of a species indicates the way by which it originally immigrated into its present breeding home, how are we going to explain the apparent uniqueness of the route of *Dendroica kirtlandii*? It must not be forgotten that it is extremely difficult, if not impossible, to trace the individual migration paths of a homogeneous species covering a large area and occupying a multitude of routes between its vast summer habitat and its equally extensive winter quarters, and that, even in cases where the birds of a widely distributed species have evolved slightly differentiated forms traveling on their own migration routes, it requires the keenest power of discernment in the sharpest bird expert to trace these routes. How can we tell but that many of the homogeneous species occupying the whole area of eastern North America do not in part follow a route similar to that of Kirtland's warbler? It will now be seen how desirable it is to trace step by step the progress of this species from the Bahamas to Michigan, and possibly beyond. Here is a species so very strongly differentiated as not to be mistaken for any other, and so limited in numbers that it probably follows only a single narrowly limited route. When we shall have solved this problem we shall also know a good deal more about the road by which in past ages part of our fauna entered their present habitat.

There remain only a few words to be said about the illustrations in Mr. Butler's book. None, as far as I have discovered, are new, and they would have received no special mention had the selection been good in all cases. We notice with pleasure all the characteristic and accurate bird portraits from John L. Ridgway's pen, furnished by Dr. Merriam's division in the Department of Agriculture, but we must earnestly protest against the presence of a number of antique caricatures — borrowed, it is true, from a book which still periodically appears in the market — which neither illustrate, because it is impossible in most of them to recognize the birds they are

intended to represent, nor lend artistic charm to the page, since they are equally vile, whether meant for pictures only or for ornithological drawings. As startling examples, we may mention the figures on pp. 737, 760, 817, and 997, labeled, respectively, Golden Plover, Passenger Pigeon, Snowy Owl, and Tree Swallow. It is also to be regretted that any of the woodcuts from Brehm's *Thierleben* (pp. 606, 1001) should still be used in an American book, after all that has been written about them. Otherwise the book, which has several interesting introductory chapters and an exhaustive bibliography, is gotten up very well and takes a high rank among similar works.

LEONHARD STEJNEGER.

Trouessart's Catalogue of Mammals, Living and Extinct.¹—Mammalogists owe to Dr. Trouessart a large debt of gratitude for his Catalogue of Recent and Extinct Mammals, the publication of which is now nearing completion, four of the five fasciculi having already appeared. Considering the magnitude and difficulties of the task, the work is well done; we detect few omissions, and the number of clerical and typographical errors is not greater than is natural to expect in a work of this character. The classification followed is essentially that of Flower and Lydekker's "Introduction to the Study of Mammals," but the order of treatment is reversed, Dr. Trouessart beginning with the Primates and ending with the Monotremes.

No one can be expected to have expert knowledge of all the varied forms of even the class mammalia in this period of rapid advance in the discovery of new forms and of the relationships of hitherto obscurely known types. As the work before us is essentially bibliographical, serving as a systematic index to the species, genera, and higher groups of the mammalia, a few slips here and there in the allocation of species and subspecies, genera and subgenera, can readily be overlooked in view of the utility of this immense undertaking. The specialist will not be misled by the occasional lapses he may detect in the case of groups he has especially investigated, and they can hardly detract from the general usefulness and convenience of a work which will prove an enduring monument to the patience, industry, and scientific acumen of its author.

¹ *Catalogus Mammalium tam Viventium quam fossilium* a Doctore E. L. Trouessart, Parisiis. Nova Editio (Prima completa). Berolini: R. Friedländer & Sohn, 8vo. Fasc. i, Primates, Prosimiæ, Chiroptera, Insectivora, pp. 1-218, 1897; Fasc. ii, Carnivora, Pinnipedia, Rodentia, pp. 219-452, 1897; Fasc. iii, Rodentia, pp. 453-664, 1897; Fasc. iv, Tillodontia et Ungulata, pp. 665-998, 1898.